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Rome marks 50 years with Air Development Center

by Fran Crumb, Information Directorate

ROME, N.Y. — Bulky television consoles with small screens were shedding their status as an upper-class novelty a half-century ago. Many used "rabbit ear" antennae to bring a single station into focus.

Picking up a telephone receiver initiated a live female voice asking what number you wanted. The local grocer punched numbers and pulled the lever of an adding machine for each item on a shopper's list. Office desks were adorned by what became known as manual typewriters - no electrical cords, but carrying an ancestral resemblance to today's keyboard.

In Rome, N.Y., the Air Force began electronics research and development.

On Sept. 14, 1950, the U.S. Congress passed an act authorizing the establishment of an "Air Force Electronic Development Center at Griffiss Air Force Base, New York." Twelve days later, President Harry S. Truman directed the transfer of personnel from Watson Laboratories, Fort Monmouth, N.J., to Rome.

The Air Force officially established Rome Air Development Center (RADC) on June 12, 1951.

Rome Laboratory was formed from elements of RADC in December 1990, as the Air Force realigned 14 laboratories and research centers into four "super" laboratories. In October 1997, those four laboratories were realigned into a single laboratory, the Air Force Research Laboratory (AFRL) at Wright-Patterson Air Force Base, Ohio.

The Air Force Research Laboratory Rome Research Site is now anchored by the AFRL Information Directorate.

During the past 50 years, Rome scientists and engineers have conducted research on a number of major aerospace systems, including the Ballistic Missile Early Warning System (BMEWS), the Distant Early Warning (DEW) Line, the Semi-Automated Ground Environment (SAGE) system, the Airborne Warning and Control System (AWACS), the first Air Force telephone switching facility, and the first operational Russian-to-English translator.

ECHO I, NASA'a 100-foot aluminized balloon satellite, was used to transmit the first intercontinental voice message from space in August 1960.

Rome Air Development Center engineers developed an automatic Russian language translator during the early 1960s.

The earth seemed a much larger planet prior to Aug. 12, 1960, when Rome engineers ushered in the era of satellite communications. No longer would Americans wait hours or days for their first glimpse of historic international events. Using NASA's Echo I satellite, a 100-foot aluminized balloon orbiting at an altitude of a thousand miles, Rome scientists transmitted radio signals from Trinidad, British West Indies, to a 30-foot antenna at the Floyd test site, three miles east of today's Griffiss Business & Technology Park.

In later years, Rome developments included a computerized cataloging system for the Military Personnel Center, improved techniques for analyzing electronic components, a system that made computer data "readable" by man and machine, and a computer capable of understanding spoken words. During

50 years continued on page 2

50 years continued from page 1

the 1970s, RADC was one of the first nodes of the Advanced Research Projects Agency (ARPA) ARPANET, a precursor to the Internet.

Civilian spin-offs of early Rome research include the compact disc, latex paint, and microwave oven components.

Today, AFRL's Rome Research Site, anchored by the Information Directorate, is a vibrant confluence of information specialists: electrical and computer engineers, computer scientists, mathematicians, physicists and a supporting staff.

Specifically, directorate scientists and engineers develop systems, concepts and technologies to enhance the Air Force's capability to successfully meet the challenges of the information age. They develop and integrate programs to acquire data; find better ways to store, process and fuse data to make it into information; and create means to deliver and present tailored information to allow the military decision-maker to have the total sphere of information needs for successful operations worldwide.

Rome Research Site personnel conduct work across a broad spectrum of information technologies in areas such as information fusion, communications, collaborative engineering environments, modeling and simulation, high performance computing, distributed computing, defensive information warfare, intelligence information systems, surveillance and photonics.

Well under half of those current employees were alive on the June day when Colonel Paul E. Burrows became the first RADC commanding officer.

Today, they may drive home in electronic-ignition vehicles, check their personal e-mail and turn on an entertainment center connected to digital cable offering more than a hundred channel selections.

Few remember when mail was an envelope with three-cent stamp. And the televisions and cars of that bygone era? They had a similarity. They basically came in black-and-white. **@**